



waste wise

Special Report January 2004

YOU ARE INVITED....

**INFORMATIONS SESSION 3 - Dublin Waste to Energy Project:
Health Aspects Saturday 21st of February 12.00 - 4.30**

**INFORMATIONS SESSION 4 - Dublin Waste to Energy Project:
Traffic Aspects Saturday 3rd of April 12.00 - 4.30**

**Both Events: Ringsend Technical Institute Cambridge
House, Cambridge Road, Ringsend, Dublin 4**

Dublin City Council have been hosting a series of Information Sessions on the Baseline monitoring for the Dublin Waste to Energy Project. These sessions have been held in September and November 2003 on Air Quality and Ecology respectively. As planned, the sessions are set to continue now in the New Year and the next two issues to be dealt with are Health and Traffic.

Information Sessions are being organised by Dublin City Council in response to requests from the community for regular updates on the project, and for information around some key areas to be examined as part of baseline monitoring and the Environmental Impact Assessment (i.e. Air Quality, Ecology, Health and Traffic). These Information Sessions are an opportunity to ask the project team and relevant experts about Health and Traffic issues that may be concerning you. Presentations will be made a number of times during the day and entertainment will be provided for children.

The Dublin Waste to Energy Project is planning to build a thermal treatment plant on the Poolbeg Peninsula to deal with 25% of waste from the Dublin Region. This is in keeping with the objectives of the Regional Waste Management plan which also provides for waste minimisation, 59% recycling and 16% landfill. The project is in the preplanning stage and Dublin City Council is currently in the process of procuring a developer.

If you would like more information, please do not hesitate to contact us at the Ringsend Regional Office.

What is the Dublin Waste to Energy Project?

The Dublin Waste to Energy Project is providing a thermal treatment plant to deal with 25% of waste from the Dublin Region. This is in keeping with the objectives of the regional plan which also provides for waste minimisation, 59% recycling and 16% landfill. This strategy for dealing with waste is an integrated approach where no one waste management option can provide the solutions for all waste. Combining the solutions means that waste production is reduced, recycling (including composting) is minimised, waste that should not be landfilled but cannot be recycled is converted into energy and landfill is kept at a minimum.

The Dublin Waste to Energy Project is being developed because the Regional Plan for Dublin, which was adopted by Dublin City Council in 1998, identified the need for thermal treatment. Following on from the adoption of the plan, a siting study was conducted which identified the preferred site for the development of the project on the Poolbeg Peninsula.

Dublin City Council are now in the process of procuring a Service Provider to Design, Build, Operate and Finance the plant. Following a shortlisting process, four Service Providers have been invited to tender. It is hoped to appoint a service provider in summer/autumn 2004. Once appointed, it will be the responsibility of the Service Provider to compile an Environmental Impact Statement and undertake the statutory process. This includes getting planning approval from An Bord Pleanála, obtaining a licence to operate from the Environmental Protection Agency and getting permission to generate and supply electricity from the Commission for Energy Regulation. These are three independent processes that allow for full participation on behalf the community. No development can commence on the Poolbeg Peninsula until and unless these three processes are successfully completed by the Service Provider.

Information Meeting Two - Ecology

The second Information Meeting was held last November and had the theme of Ecology.

The agenda for the evening started with Elizabeth Arnett, Ringsend Regional Office, providing an update on the project and the work of the Ringsend Regional Office. The meeting then focused on the topic for the evening, Ecology. There were two presentations on ecology including one from

Erling Poelsin from COWI. Erling is a marine biologist who works for the company providing environmental and engineering consultancy to the project. The second presentation was from Eleanor Mays an ecologist carrying out work in relation to the birds in the Dublin Bay area. There was

a lengthy discussion and many questions were asked about ecological aspects of the project and waste management in general.

A more detailed account of the meeting is available from the Ringsend Regional Office, Cambridge House, Cambridge Road, Ringsend Dublin 4.

An External Review Group has been put in place to act as a quality control on the information that is being distributed about the Waste to Energy project by DCC. This group consists of two people who have a wealth of expertise and knowledge in the areas of the environment and regulation.

- Anne Butler is a former director of the Environmental Protection Agency (EPA) and
- Dr. Ann Quinn is a former Vice-Chairman of An Bord Pleanála and currently lectures in Planning at the Dublin Institute of Technology

Both of these experts can be contacted via the Ringsend office.

Presentation: Background to the Project and Progress to date

Elizabeth Arnett - Local Communications Co-Ordinator - Ringsend Regional Office.

Elizabeth Arnett is an environmental scientist seconded to the Ringsend office from RPS-MCOS.

Elizabeth explained that the Dublin Waste to Energy project forms part of the implementation of the Dublin Waste Plan and will contribute to delivering waste management for the Dublin Region.

The process began when Dublin City Council (DCC) commissioned a feasibility and siting study. The results of this showed the preferred site for a Thermal Treatment plant to be on the Poolbeg Peninsula. A team of consultants were then appointed as the 'client representative' in order to appoint a developer for the plant.

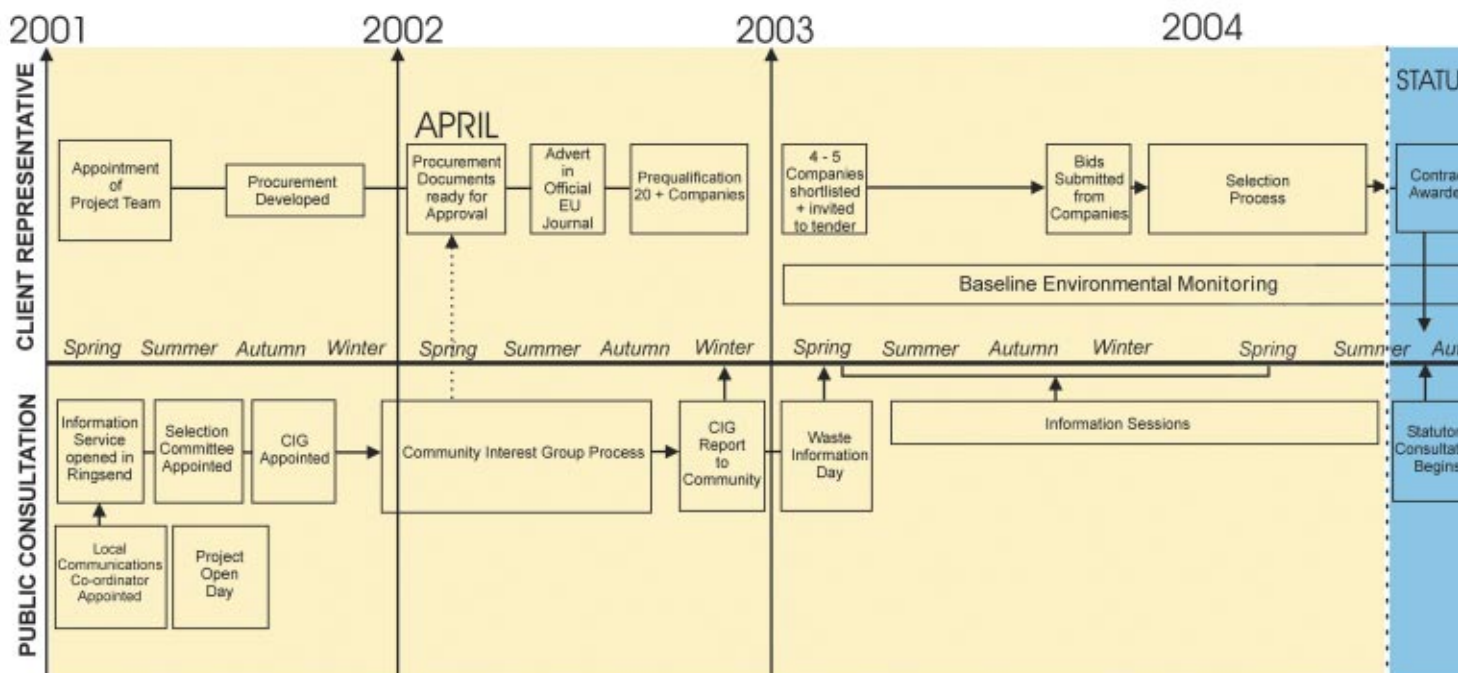
The procurement process began in May 2002 when Expressions of Interest (EOI) were sought from potential developers. These were short-listed and 4 were selected to submit bids. In mid 2004 a developer will be

appointed and this is when the Statutory Process is planned to commence.

There are 3 statutory (legal authorisation) processes that need to take place.

1. An Environmental Impact Assessment (EIA) for the proposed plant has to be prepared and submitted to An Bord Pleanála for approval.
2. An application for a licence to operate the plant has to be made to the Environmental Protection Agency (EPA).
3. An application for a licence to produce electricity has to be made to the Commission for Energy Regulation.

Elizabeth concluded the presentation by urging the community to use the Ringsend Regional Office and to take advantage of the opportunity to talk to Erling Poelsin and Eleanor Mays about ecology related issues at the Information Session.



Presentation: Baseline Ecology Monitoring

Erling Poelsin - COWI

Erling's presentation took account of questions that had already been identified by the community about baseline ecology monitoring for the Dublin Waste to Energy project:

Objective of the Baseline Monitoring:

- To investigate the existing environmental conditions prior to the development of a Waste to Energy Facility on the Poolbeg Peninsula (Baseline Study)
- The baseline study will be used as background for the EIS which will be prepared by the developer once the tender has been decided.

Erling's presentation then highlighted:

- Water quality monitoring by Dublin City Council. Indicating how samples are taken and from where along with what is analysed.
- Sediment and benthic fauna monitoring by Dublin City Council. Indicating where the sample sites are and what is analysed.
- Field study sampling sites around Dublin Bay.

Conclusions:

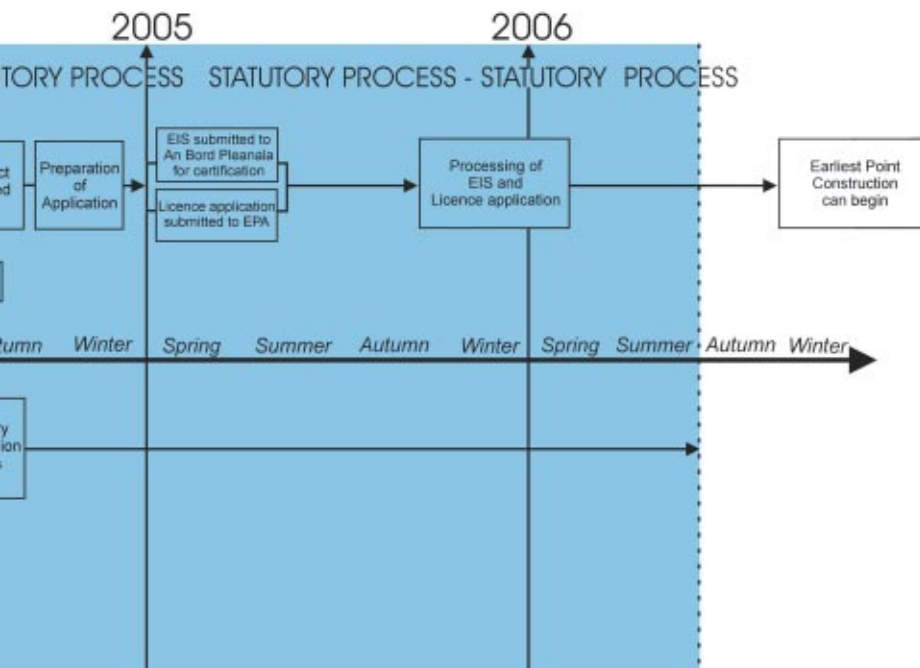
The water quality of Dublin Bay is generally good

Heavy metals concentrations are generally low except that heavy metals tend to accumulate in the muddy sediments of Tolka estuary. There is a rich fauna of benthic invertebrates in Dublin Bay. The following benthic fauna communities are found: Tellina, Macoma, Arba and Venus communities.

In the Liffey, the riverbed is virtually devoid of fauna from Kingsbridge to about 1.5 km below Butt Bridge, due to poor oxygen conditions. Further downstream fauna is present and progressively the fauna becomes more normal towards Poolbeg.

Dublin Bay is an important habitat for fish. It is a nursery area for several species including dab, plaice, flounder and whiting. The Bay is a zone of passage of migrating salmon and sea trout.

The agenda for the evening started with Elizabeth Arnett, Ringsend Regional Office, providing an update on the project and the work of the Ringsend Regional Office. The meeting then focused on the topic for the evening, Ecology.



Presentation: Baseline Ecology Monitoring

Eleanor Mayes - Ecologist

Eleanor Mayes's presentation highlighted the bird species that colonise the Dublin Bay area, what they feed on and the numbers present. She explained that there are areas of the Bay that are protected under the EU Habitats Directive, for example, Bull Island which has salt meadow and dunes.

Of the key species in the Dublin Bay there are internationally important species present. Some of these species are:

- Ducks are of national importance because of their numbers. 15% of the world's population winter in Dublin Bay.
- The Oystercatcher is nationally important with just over 4,000 birds in the nation. In the middle of winter they use the grass lands.
- The Ringed Glover - the total numbers vary quite a bit probably related to food supply.
- The Great Glover, are more restricted in where they occur.
- The Knot is in internationally important numbers in Dublin Bay. It reached important numbers in the last 3 years. It is the third most important site for Knots in Ireland.
- The Sanderling is a nationally important species.
- Black tailed godwit.
- Bar tailed godwit - both godwits are internationally important.
- Curlew - largely North Bay.
- Redshank - internationally important species.
- Turnstone - species feed on mixed substrate and stones.

Concluding remarks are that the proposed site was surveyed but the surrounding terrestrial areas have not been, for example the Nature Park, and this will be surveyed before the studies are concluded.

Frequently asked questions about Thermal Treatment

What is incineration?

An Incinerator is any plant dedicated to the thermal treatment of waste with or without energy recovery. Ireland's policy is one of thermal treatment with energy recovery. This can include many different technologies including pre-treatment processes in so far as the substances resulting from the treatments are subsequently incinerated.

The primary benefit of incineration is to reduce the volume of waste prior to final disposal. It stabilises and sanitises waste and has the additional benefit of recovering energy in the form of heat and/or electricity which will displace the use of fossil fuels.

Do Emissions from incinerators harm health and the environment? NO

Properly managed and monitored Municipal Waste Incinerators do not impact on the environment, health or food quality. This is because incineration of waste is strictly controlled and the gases emitted are cleaned and scrubbed to ensure that any emissions are extremely low. However, incinerators do emit a broad spectrum of chemicals to the environment - albeit in extremely small quantities. These include carbon monoxide, nitrogen oxides (Nox), arsenic, cadmium, lead, mercury, benzenes, dioxins and furans. Many opponents of incineration argue that because incinerators emit these chemicals they should not be built. However, difficult as it may be to believe, chemicals like dioxins already exist in our environment and come from very familiar sources

like smoking, traffic, illegal burning of waste - even home heating systems. What determines whether they do us harm is the amount or DOSE we are exposed to. Common chemicals like salt can be toxic to the human body if taken in large enough quantities. Even if all seven municipal waste incinerators required under the regional waste management plans were built in Ireland - they would contribute less than 2% of the dioxins emitted to air (EPA, 2001). Most dioxins will continue to come from uncontrolled, illegal burning of waste in back gardens. In fact incinerators, even in rural areas contribute less than a few percent of all chemicals emitted to existing background levels.

What are dioxins?

Dioxins are the unwanted by-product of low temperature, uncontrolled burning. At a certain dosage, 17 have been identified as posing a risk to human health. Most of our exposure (over 90%) to dioxins comes through the food chain. They persist in body fat and remain in the

body for a very long period of time. There are many sources of dioxins to the Irish environment including smoking, transport, home heating and some types of industrial processes but back-yard burning of waste is the single greatest source of dioxins to the Irish environment.

If dioxins are so toxic, and incinerators produce them, surely building incinerators will increase the levels of dioxins in the Irish environment! WRONG

Properly managing our waste will reduce the impact waste has on our environment - including dioxin emissions. Currently most dioxins come from uncontrolled backyard burning of waste. Most of this waste should be recycled with the remainder going to disposal in properly managed incinerators or landfill sites. If all of the waste that is currently being burned illegally was handled in this way - the levels of dioxins in Ireland would decrease dramatically. Ensuring that waste management

has the least possible impact on the environment will involve providing all of the infrastructure necessary to maximise recycling, recover energy from the waste that can not be recycled and keep landfill to a minimum. Backyard burning usually occurs at a temperature of about 300 - 400 °C which is the temperature at which dioxins are formed. Incinerators burn waste at over 850°C, the temperature at which dioxins are destroyed.

Have you any questions about the Dublin Waste to Energy Project?

Please send any questions you have to:

Elizabeth Arnett, Local Communications Co-Ordinator at the Dublin City Council, Ringsend Regional Office, Cambridge Road, Ringsend, Dublin 4. Ph 01 2815918 Fax 01 6606921 Web www.dublinwastetoenergy.ie